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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,976	06/19/2005	Adrianus Johannes Stephanes Maria De Vaan	NL 021255	8346
24737 7590 05/14/2007 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			EXAMINER FENWICK, WARREN K	
			ART UNIT 2809	PAPER NUMBER
			MAIL DATE 05/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/539,976

**Applicant(s)**DE VAAN, ADRIANUS JOHANNES  
STEPHANES MA**Examiner**

Warren K. Fenwick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6-19-05 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                |                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                           | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6-19-05</u> | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 03/25/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS is being considered by the examiner.
2. The listing of references in the specification is not a proper IDS. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." However, since the references listed in the specification are also listed on the applicant's IDS (form USPTO 1449), those references have been considered by the examiner.

### ***Foreign Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

#### **Drawing Objections**

4. It appears that Figure 3 comprise a grey-scale representation of a color photograph or drawing. Color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be

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accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

5. The descriptions of Figures 3 and 4, as disclosed by the specification on page 7, lines 33-34 and on page 8, line 26), are reversed. Specifically, specification references of Figure 3 are actually of Figure 4, and vice-versa. Correction is required.

#### Specification Objections

6. The application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

7. Although it appears that the specification conforms the specification content format presented below in subparagraphs (a) – (l), there are no section sub-headings (as underlined, below) in the specification. Correction is required.

#### Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and

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descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in

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general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. **Claim 1** recites the limitation "with at least three of said four primary colours" in lines 9-10 of claim 1. There is insufficient antecedent basis for this limitation in the claim. The wording needs to be corrected to read "with at least three of the four primary colours: red, green, blue, and yellow."

10. **Claim 2** recites the limitation "with at least four of said four primary colours" in lines 13-14 of claim 1. There is insufficient antecedent basis for this limitation in the claim. The wording needs to be corrected to read "with the four primary colours: red, green, blue, and yellow"

11. **Claims 11-13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim. The phrases "first type of image" or "second type of image" do not have any metes or bounds. The image type (video or print) is not specified.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. **Claims 1-3 and 6-14** are rejected under 35 U.S.C. 102(e) as being anticipated

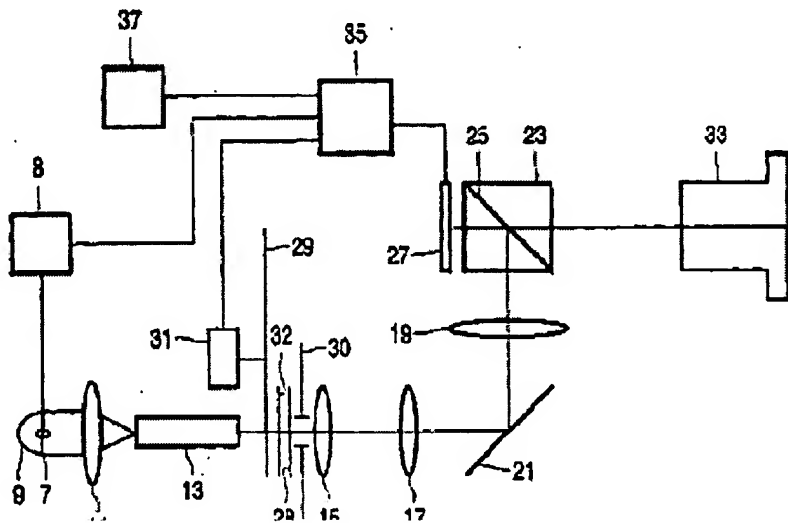
by De Vaan et al. (U. S. PG Pub # 2002/0176055 A1).

14. Regarding **claim 1**, De Vaan et al. disclose a projection display device (Figure 1)

comprising:

- a) an illumination system having a light source (Figure 1, element 7) providing an illumination beam,
- b) a colour filter means (Figure 1, element 29) comprising four different colour filter segments, corresponding to four different primary colours, respectively, for scanning an image display panel with different coloured portions of the illumination beam, and
- c) an image display system (Figure 1, element 5) comprising said image display panel (Figure 1, element 27) for modulating the coloured portions of the illumination beam with image information and projecting an image on a screen, characterized in that the colour filter segments are arranged to allow simultaneous scanning of said image display panel with at least three of said four primary colours (page 2, paragraph 26, lines 27-29).





15. Regarding **claim 2**, De Vaan et al. disclose a projection display, wherein the colour filter means is arranged to allow simultaneous scanning of said image display panel with at least four of said four primary colours (page 2, paragraph 026, lines 27-29).

16. Regarding **claim 3**, De Vaan et al. disclose a projection display, wherein the colour filter means is a colour wheel (Figure 1, element 29).

17. Regarding **claim 6**, De Vaan et al. disclose a projection display, wherein the colour filter segments are spiral-shaped (Figure 4 and page 3, paragraph 29, lines 38-40).

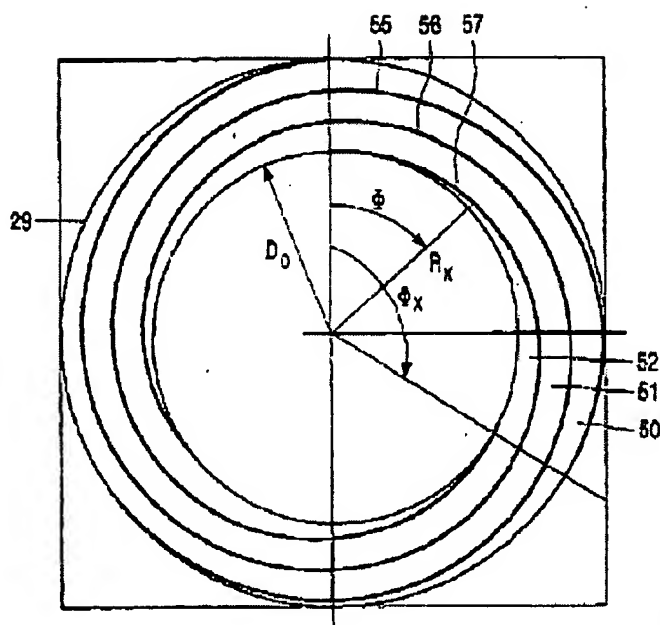


FIG. 4

18. Regarding **claim 7**, De Vaan et al. disclose projection display, wherein three of the primary colours are chosen from the set of red, green, blue (Figure 4, elements 50-52), yellow, cyan and magenta (page 3, paragraph 28, lines 2-5).
19. Regarding **claim 8**, De Vaan et al. disclose a colour filter wheel (Figure 4) for use as said colour filter means in a projection display.
20. Regarding **claim 9**, De Vaan et al. disclose a colour filter wheel, wherein the colour filter segments are spiral-shaped (Figure 4).
21. Regarding **claim 10**, De Vaan et al. disclose a colour filter wheel with said projection device having an illumination window for transmitting said illumination beam to said colour filter segments, the distance from the intersection between two adjacent colour filter segments to the centre of said colour wheel is determined by the equation:

$$R_x = D_0 + \alpha(\Phi + \Phi_x)$$

wherein,  $R_x$  is the distance from the intersection  $x$  to the centre of the wheel between the colours,  $D_0$  is the distance between the illumination window and the centre of the wheel,  $\alpha$  is a constant,  $\Phi$  is the angle of the wheel and  $\Phi_x$  is the phase of the intersection  $x$  (Figure 4 and page 3, paragraphs 30-36).

22. Regarding **claim 11**, De Vaan et al. disclose An image display system for use in a projection display device (Figure 1, element 5), wherein the display system is arranged to discriminate between at least a first type of image and a second type of image (page 1, paragraph 2, lines 1-10) to be presented; for an image of said first type, projecting the image using a first set of the primary colours of the colour filter means; and for an image of said second type, projecting the image using a second set of the primary colours of the colour filter means.

23. Regarding **claim 12, 13, and 14**, De Vaan et al. disclose a method, wherein data images are displayed (page 1, paragraph 2, lines 1-10), using all of said four different primary colours (Figure 6, elements 61-64) and wherein video images are displayed (page 1, paragraph 2, lines 1-10), using three of said four primary colours.

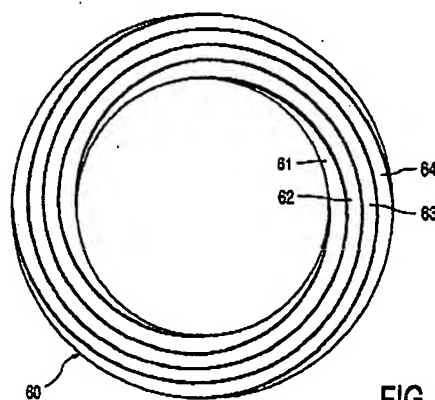


FIG. 6

***Claim Rejections - 35 USC § 103***

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- a. Determining the scope and contents of the prior art.
- b. Ascertaining the differences between the prior art and the claims at issue.
- c. Resolving the level of ordinary skill in the pertinent art.
- d. Considering objective evidence present in the application indicating obviousness or nonobviousness.

26. **Claims 4 and 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over De Vaan et al. (U. S. PG Pub # 2002/0176055 A1) as applied to claim 1 above in view of Brennesholtz (U. S. Patent # 6,361,172 B1).

27. The cited primary reference (De Vaan et al.) teaches all of the claimed limitations presented in the independent claim 1 above. However, De Vaan does not disclose that the color filter segments can be either a color drum or a polygon mirror (or prism).

28. The cited secondary reference Brennesholtz teaches:

- a) Regarding **claim 4**, a projection display, wherein the colour filter means is a colour drum (Figure 6, element 60).

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- b) Regarding **claim 5**, a projection display, wherein the colour filter means is a semi-cylindrical lens/mirror (Figure 6, element L8).

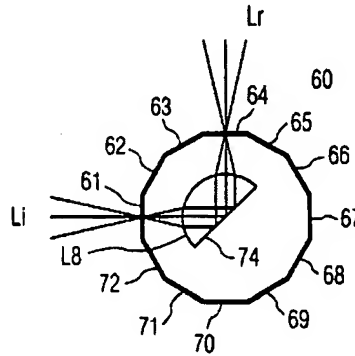


FIG. 6

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a projection display device having a color filter means as disclosed by De Vaan et al. to also utilize alternate color filter means by using a colour drum and a semi-cylindrical lens/mirror as taught by Brennesholtz to produce a projection display device that produces images having optimum brightness, color reproduction fidelity, contrast, and sharpness.

### **Conclusion**

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references are, made of record and not relied upon, are presented in the following paragraphs.

31. De Vaan et al. (U. S. PG Pub # 2002/0176146 A1) disclose a "Projection Display Device".

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32. Dewald (U. S. PG Pub # 2002/0135862 A1) discloses an "Illumination System for Scrolling Color Recycling".

33. Fujimoto et al. (U. S. PG Pub # 2002/0021345 A1) disclose an "Image Forming Apparatus and Controlling Method Thereof".

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warren K. Fenwick whose telephone number is 571-270-3040. The examiner can normally be reached on Mon - Fri 9A to 5:30P, Eastern Time.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. The fax phone number or the organization where this application or proceeding is assigned is 571-273-8300.

36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WKF



**PATRICK ASSOUD  
SUPERVISORY PATENT EXAMINER**